

CLAIMS

1. A silicone coating composition comprising:

(I) a first coating layer comprising a silicone composition (X) obtained by a method comprising reacting:

- 5 (A) 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups wherein the organosiloxane compound is selected from
- (i) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $SiO_{4/2}$ units is from 0.05 to 4.0,
 - 10 (ii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0,
 - (iii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is
15 from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ and $R^1SiO_{3/2}$ units combined to $SiO_{4/2}$ units is from 4 to 99,
 - (iv) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $R^2_2SiO_{2/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is
from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units combined to
20 $R^2_2SiO_{2/2}$ units is from 0.5 to 99,
 - (v) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^1SiO_{3/2}$ units is from 0.2 to 4.0,
 - (vi) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and
25 $R^2_3SiO_{1/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^2_3SiO_{1/2}$ units is from 0 to 15,000, and

(vii) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units, $R^2_3SiO_{1/2}$ units, and $SiO_{2/2}$ units, wherein the molar ratio of $SiO_{2/2}$ units to $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units combined is from 0.005 to 0.125

wherein R^1 is a hydrocarbon group free of aliphatic unsaturation and R^2 is selected from R^1 and alkenyl groups;

(B) at least one organohydrogensilicon compound in an amount sufficient to crosslink (A) selected from

(i) an organohydrogensilane compound having the formula

$HR^3_2SiR^4SiR^3_2H$ wherein R^3 is a hydrocarbon group free of aliphatic unsaturation and R^4 is a divalent hydrocarbon group and

(ii) an organohydrogensiloxane compound having the formula

$(HR^3_aSiO_{(3-a)/2})_b(R^1_cSiO_{(4-c)/2})_d$ wherein R^1 and R^3 are as defined above,

$1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

(C) a catalytic amount of a hydrosilylation catalyst; and

optionally (D) an inorganic filler; and

(II) a second coating layer in contact with the coating layer (I), the second coating layer comprising a silicone composition (Y) obtained by a method comprising reacting:

(A') 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups, wherein the organosiloxane compound is selected from

(i) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and

$R^2_3SiO_{1/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units is from 0 to 15,000 and

(ii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $SiO_{4/2}$

units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $SiO_{4/2}$ units is from 0.05 to 4.0

wherein R^2 is selected from hydrocarbon groups free of aliphatic unsaturation and alkenyl groups;

(B') at least one organohydrogensilicon compound in an amount sufficient to crosslink (A') selected from

(i) an organohydrogensilane compound having the formula $\text{HR}^3_2\text{SiR}^4\text{SiR}^3_2\text{H}$ and

(ii) an organohydrogensiloxane compound having the formula $(\text{HR}^3_a\text{SiO}_{(3-a)/2})_b(\text{R}^1_c\text{SiO}_{(4-c)/2})_d$

wherein R^1 and R^3 are each independently a hydrocarbon group free of aliphatic unsaturation, R^4 is a divalent hydrocarbon group, $1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

(C') a catalytic amount of a hydrosilylation catalyst; and

optionally (D') an inorganic filler

with the proviso that the molar ratio of $\text{R}^2_2\text{SiO}_{2/2}$ units to all other units combined is higher in composition (Y) than in composition (X), and the surface energy of composition (Y) is lower than Composition (X).

2. A silicone coating composition according to Claim 1, wherein the hydrocarbon group free of aliphatic unsaturation is independently selected from methyl and phenyl and the alkenyl group is vinyl.

3. A silicone coating composition according to Claim 1, wherein:

(A) is an organosiloxane compound comprising $\text{ViMe}_2\text{SiO}_{1/2}$ units and $\text{PhSiO}_{3/2}$ units, where the molar ratio of $\text{ViMe}_2\text{SiO}_{1/2}$ units to $\text{PhSiO}_{3/2}$ is from 0.05 to 3.0;

5 (B) is an organohydrogensilane compound having the formula $\text{HMe}_2\text{Si-Ph-SiMe}_2\text{H}$;

(A') is an organosiloxane compound comprising $(\text{ViMe}_2\text{SiO}_{1/2})$ units, $(\text{Me}_3\text{SiO}_{1/2})$ units, $(\text{Me}_2\text{SiO}_{2/2})$ units, and (SiO_2) units wherein the ratio of $(\text{ViMe}_2\text{SiO}_{1/2})$ units + $(\text{Me}_3\text{SiO}_{1/2})$ units to $(\text{Me}_2\text{SiO}_{2/2})$ units is from 1/10000 to 1/5 and the ratio of $(\text{Me}_2\text{SiO}_{2/2})$ units to (SiO_2) units is from 200/1 to 1/4;

10 (B') is an organohydrogensiloxane compound having the formula $\text{Me}_3\text{SiO}(\text{Me}_2\text{SiO})_x(\text{MeHSiO})_y\text{SiMe}_3$ wherein the value of $x+y$ provides a molecular weight of 134 to 75,000 and there are at least two SiH groups per molecule;

(C) and (C') are platinum-containing hydrosilylation catalysts; and

(D) and (D') are selected from hollow microspheres, fumed silica, precipitated silica, silicic anhydride, hydrous silicic acid, carbon black, ground quartz, calcium carbonate, magnesium carbonate, diatomaceous earth, wollastonite, calcined clay, clay, talc, kaolin, titanium oxide, bentonite, ferric oxide, zinc oxide, glass balloon, glass beads, mica, glass powder, glass balloons, coal dust, acrylic resin powder, phenolic resin powder, ceramic powder, zeolite, slate powder, organic fibers, and inorganic fibers.

4. A method of making an article of manufacture comprising the steps of:

(I) applying a silicone composition (Y) to a substrate to form a coating 1 to 500 micrometer thick wherein silicone composition (Y) is obtained by a method comprising reacting:

5 (A') 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups, wherein the organosiloxane compound is selected from

(i) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units is

10 between 0 and 15,000 and

(ii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $SiO_{4/2}$ units is from 0.05 to 4.0 wherein R^2 is selected from hydrocarbon groups free of aliphatic unsaturation and alkenyl groups;

15 (B') at least one organohydrogensilicon compound in an amount sufficient to crosslink (A') selected from

(i) an organohydrogensilane compound having the formula $HR^3_2SiR^4SiR^3_2H$ and

(ii) an organohydrogensiloxane compound having the formula

20 $(HR^3_aSiO_{(3-a)/2})_b(R^1_cSiO_{(4-c)/2})_d$

wherein R^1 and R^3 are each independently a hydrocarbon group free of aliphatic unsaturation, R^4 is a divalent hydrocarbon group, $1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

25 (C') a catalytic amount of a hydrosilylation catalyst; and optionally (D') an inorganic filler;

(II) curing silicone composition (Y);

(III) forming a pattern on top of the product of step (II);

(IV) applying a silicone composition (X) over the pattern of step (III) wherein

30 silicone composition (X) is obtained by a method comprising reacting:

(A) 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups wherein the organosiloxane compound is selected from

- (i) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $SiO_{4/2}$ units is from 0.05 to 4.0,
- (ii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0,
- (iii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ and $R^1SiO_{3/2}$ units combined to $SiO_{4/2}$ units is from 4 to 99,
- (iv) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $R^2_2SiO_{2/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units combined to $R^2_2SiO_{2/2}$ units is from 0.5 to 99,
- (v) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^1SiO_{3/2}$ units is from 0.2 to 4.0,
- (vi) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^2_3SiO_{1/2}$ units is from 0 to 15,000, and
- (vii) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units, $R^2_3SiO_{1/2}$ units, and $SiO_{2/2}$ units, wherein the molar ratio of $SiO_{2/2}$ units to $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units combined is from 0.005 to 0.125

wherein R^1 is a hydrocarbon group free of aliphatic unsaturation and R^2 is selected from R^1 and alkenyl groups;

(B) at least one organohydrogensilicon compound in an amount sufficient to crosslink (A) selected from

- 5 (i) an organohydrogensilane compound having the formula
 $HR^3_2SiR^4SiR^3_2H$

wherein R^3 is a hydrocarbon group free of aliphatic unsaturation and R^4 is a divalent hydrocarbon group and

- (ii) an organohydrogensiloxane compound having the formula
 10 $(HR^3_aSiO_{(3-a)/2})_b(R^1_cSiO_{(4-c)/2})_d$ wherein R^1 and R^3 are as defined above,
 $1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

(C) a catalytic amount of a hydrosilylation catalyst; and
 optionally (D) an inorganic filler;

- 15 (V) curing silicone composition (X)

with the proviso that the molar ratio of $R^2_2SiO_{2/2}$ units to all other units combined is higher in silicone composition (Y) than in the silicone composition (X), and the surface energy of the cured composition (Y) is lower than the cured silicone composition (X); and
 (VI) separating the cured silicone composition (X) of step (V) from the substrate.

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5. A method according to Claim 4, wherein the hydrocarbon group free of aliphatic unsaturation is independently selected from methyl and phenyl and the alkenyl group is vinyl.

6. A method according to Claim 4, wherein:

(A) is an organosiloxane compound comprising $\text{ViMe}_2\text{SiO}_{1/2}$ units and $\text{PhSiO}_{3/2}$ units, where the molar ratio of $\text{ViMe}_2\text{SiO}_{1/2}$ units to $\text{PhSiO}_{3/2}$ is from 0.05 to 3.0;

5 (B) is an organohydrogensilane compound having the formula $\text{HMe}_2\text{Si-Ph-SiMe}_2\text{H}$;

(A') is an organosiloxane compound comprising ($\text{ViMe}_2\text{SiO}_{1/2}$) units, ($\text{Me}_3\text{SiO}_{1/2}$) units, ($\text{Me}_2\text{SiO}_{2/2}$) units, and (SiO_2) units wherein the ratio of ($\text{ViMe}_2\text{SiO}_{1/2}$) units + ($\text{Me}_3\text{SiO}_{1/2}$) units to ($\text{Me}_2\text{SiO}_{2/2}$) units is from 1/10000 to 1/5 and the ratio of ($\text{Me}_2\text{SiO}_{2/2}$) units to (SiO_2) units is from 200/1 to 1/4;

10 (B') is an organohydrogensiloxane compound having the formula $\text{Me}_3\text{SiO}(\text{Me}_2\text{SiO})_x(\text{MeHSiO})_y\text{SiMe}_3$ wherein the value of $x+y$ provides a molecular weight of 134 to 75,000 and there are at least two SiH groups per molecule;

(C) and (C') are platinum-containing hydrosilylation catalysts; and

(D) and (D') are selected from hollow microspheres, fumed silica, precipitated silica, silicic anhydride, hydrous silicic acid, carbon black, ground quartz, calcium carbonate, magnesium carbonate, diatomaceous earth, wollastonite, calcined clay, clay, talc, kaolin, titanium oxide, bentonite, ferric oxide, zinc oxide, glass balloon, glass beads, mica, glass powder, glass balloons, coal dust, acrylic resin powder, phenolic resin powder, ceramic powder, zeolite, slate powder, organic fibers, and inorganic fibers.

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7. A method of making an article of manufacture comprising the steps of:

(I) applying a silicone composition (X) to a substrate to form a coating 1 to 500 micrometer thick wherein silicone composition (X) is obtained by a method comprising reacting:

(A) 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups wherein the organosiloxane compound is selected from

(i) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $SiO_{4/2}$ units is from 0.05 to 4.0,

(ii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0,

(iii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ and $R^1SiO_{3/2}$ units combined to $SiO_{4/2}$ units is from 4 to 99,

(iv) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $R^2_2SiO_{2/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units combined to $R^2_2SiO_{2/2}$ units is from 0.5 to 99,

(v) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^1SiO_{3/2}$ units is from 0.2 to 4.0, and

(vi) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^2_3SiO_{1/2}$ units is from 0 to 15,000

wherein R^1 is a hydrocarbon group free of aliphatic unsaturation and R^2 is selected from R^1 and alkenyl groups;

(B) at least one organohydrogensilicon compound in an amount sufficient to crosslink (A) selected from

(i) an organohydrogensilane compound having the formula

$\text{HR}^3_2\text{SiR}^4\text{SiR}^3_2\text{H}$ wherein R^3 is a hydrocarbon group free of aliphatic unsaturation and R^4 is a divalent hydrocarbon group and

(ii) an organohydrogensiloxane compound having the formula

$(\text{HR}^3_a\text{SiO}_{(3-a)/2})_b(\text{R}^1_c\text{SiO}_{(4-c)/2})_d$ wherein R^1 and R^3 are as defined above, $1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

(C) a catalytic amount of a hydrosilylation catalyst; and

optionally (D) an inorganic filler

(II) curing silicone composition (X);

(III) forming a pattern on top of the product of step (II);

(IV) applying a silicone composition (Y) over the pattern of step (III) wherein silicone

composition (Y) is obtained by a method comprising reacting:

(A') 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups, wherein the organosiloxane compound is selected from

(i) an organosiloxane compound comprising $\text{R}^2_2\text{SiO}_{2/2}$ units and

$\text{R}^2_3\text{SiO}_{1/2}$ units, wherein the molar ratio of $\text{R}^2_2\text{SiO}_{2/2}$ units and $\text{R}^2_3\text{SiO}_{1/2}$ units is from 0 to 15,000 and

(ii) an organosiloxane compound comprising $\text{R}^2_3\text{SiO}_{1/2}$ units and $\text{SiO}_{4/2}$ units, wherein the molar ratio of $\text{R}^2_3\text{SiO}_{1/2}$ units to $\text{SiO}_{4/2}$ units is from 0.05 to 4.0

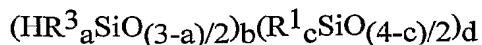
wherein R^2 is selected from hydrocarbon groups free of aliphatic unsaturation and alkenyl groups;

(B') at least one organohydrogensilicon compound in an amount sufficient to crosslink (A') selected from

(i) an organohydrogensilane compound having the formula

$\text{HR}^3_2\text{SiR}^4\text{SiR}^3_2\text{H}$ and

(ii) an organohydrogensiloxane compound having the formula



wherein R^1 and R^3 are each independently a hydrocarbon group free of aliphatic unsaturation, R^4 is a divalent hydrocarbon group, $1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

(C') a catalytic amount of a hydrosilylation catalyst; and

optionally (D') an inorganic filler;

(V) curing silicone composition (Y)

with the proviso that the molar ratio of $\text{R}^2_2\text{SiO}_{2/2}$ units to all other units combined is higher

10 in silicone composition (X) than in the silicone composition (Y), and the surface energy of the cured composition (X) is lower than the cured silicone composition (Y); and

(VI) separating the cured silicone composition (Y) of step (V) from the substrate.

8. A method according to Claim 7, wherein the hydrocarbon group free of aliphatic
15 unsaturation is independently selected from methyl and phenyl and the alkenyl group is vinyl.

9. A method according to Claim 7, wherein:

(A) is an organosiloxane compound comprising $\text{ViMe}_2\text{SiO}_{1/2}$ units and $\text{PhSiO}_{3/2}$ units, where the molar ratio of $\text{ViMe}_2\text{SiO}_{1/2}$ units to $\text{PhSiO}_{3/2}$ is from 0.05 to 3.0;

5 (B) is an organohydrogensilane compound having the formula $\text{HMe}_2\text{Si-Ph-SiMe}_2\text{H}$;

(A') is an organosiloxane compound comprising ($\text{ViMe}_2\text{SiO}_{1/2}$) units, ($\text{Me}_3\text{SiO}_{1/2}$) units, ($\text{Me}_2\text{SiO}_{2/2}$) units, and (SiO_2) units wherein the ratio of ($\text{ViMe}_2\text{SiO}_{1/2}$) units + ($\text{Me}_3\text{SiO}_{1/2}$) units, to ($\text{Me}_2\text{SiO}_{2/2}$) units, is from 1/10000 to 1/5 and the ratio of ($\text{Me}_2\text{SiO}_{2/2}$) units to (SiO_2) units is from 200/1 to 1/4;

10 (B') is an organohydrogensiloxane compound having the formula $\text{Me}_3\text{SiO}(\text{Me}_2\text{SiO})_x(\text{MeHSiO})_y\text{SiMe}_3$ wherein the value of $x+y$ provides a molecular weight of 134 to 75,000 and there are at least two SiH groups per molecule;

(C) and (C') are platinum-containing hydrosilylation catalysts; and

15 (D) and (D') are selected from hollow microspheres, fumed silica, precipitated silica, silicic anhydride, hydrous silicic acid, carbon black, ground quartz, calcium carbonate, magnesium carbonate, diatomaceous earth, wollastonite, calcined clay, clay, talc, kaolin, titanium oxide, bentonite, ferric oxide, zinc oxide, glass balloon, glass beads, mica, glass powder, glass balloons, coal dust, acrylic resin powder, phenolic resin powder, ceramic powder, zeolite, slate powder, organic fibers, and inorganic fibers.

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10. A method of making an article of manufacture comprising the steps of:

(I) applying a silicone composition (Y) to a substrate to form a coating 1 to 500 micrometer thick wherein silicone composition (Y) is obtained by a method comprising reacting:

(A') 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups, wherein the organosiloxane compound is selected from

(i) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units is from 0 to 15,000 and

(ii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $SiO_{4/2}$ units is from 0.05 to 4.0 wherein R^2 is selected from hydrocarbon groups free of aliphatic unsaturation and alkenyl groups;

(B') at least one organohydrogensilicon compound in an amount sufficient to crosslink (A') selected from

(i) an organohydrogensilane compound having the formula $HR^3_2SiR^4SiR^3_2H$ and

(ii) an organohydrogensiloxane compound having the formula $(HR^3_aSiO_{(3-a)/2})_b(R^1_cSiO_{(4-c)/2})_d$

wherein R^1 and R^3 are each independently a hydrocarbon group free of aliphatic unsaturation, R^4 is a divalent hydrocarbon group, $1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

(C') a catalytic amount of a hydrosilylation catalyst; and

optionally (D') an inorganic filler;

(II) curing silicone composition (Y);

(III) forming a pattern on top of the product of step (II);

(IV) placing a layer with the pattern embedded in on top of the layer, in alignment with but not in contact with the substrate;

(V) applying a silicone composition (X) onto the surface of the substrate or onto the surface of the layer through capillary flow wherein silicone composition (X) is obtained by a method comprising reacting:

(A) 100 parts by weight of at least one organosiloxane compound containing an average of greater than two alkenyl groups per molecule and having less than 1.5 mol % of silicon-bonded hydroxy groups wherein the organosiloxane compound is selected from

(i) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $SiO_{4/2}$ units is from 0.05 to 4.0,

(ii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0,

(iii) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $SiO_{4/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ and $R^1SiO_{3/2}$ units combined to $SiO_{4/2}$ units is from 4 to 99,

(iv) an organosiloxane compound comprising $R^2_3SiO_{1/2}$ units, $R^1SiO_{3/2}$ units, and $R^2_2SiO_{2/2}$ units, wherein the molar ratio of $R^2_3SiO_{1/2}$ units to $R^1SiO_{3/2}$ units is from 0.05 to 3.0, and the molar ratio of $R^2_3SiO_{1/2}$ units and $R^1SiO_{3/2}$ units combined to $R^2_2SiO_{2/2}$ units is from 0.5 to 99,

(v) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^1SiO_{3/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^1SiO_{3/2}$ units is from 0.2 to 4.0, and

(vi) an organosiloxane compound comprising $R^2_2SiO_{2/2}$ units and $R^2_3SiO_{1/2}$ units, wherein the molar ratio of $R^2_2SiO_{2/2}$ units to $R^2_3SiO_{1/2}$ units is from 0 to 15,000

wherein R^1 is a hydrocarbon group free of aliphatic unsaturation and R^2 is selected from R^1 and alkenyl groups;

(B) at least one organohydrogensilicon compound in an amount sufficient to crosslink (A) selected from

(i) an organohydrogensilane compound having the formula

$\text{HR}^3_2\text{SiR}^4\text{SiR}^3_2\text{H}$ wherein R^3 is a hydrocarbon group free of aliphatic unsaturation and R^4

5 is a divalent hydrocarbon group and

(ii) an organohydrogensiloxane compound having the formula

$(\text{HR}^3_a\text{SiO}_{(3-a)/2})_b(\text{R}^1_c\text{SiO}_{(4-c)/2})_d$ wherein R^1 and R^3 are as defined above,

$1 \leq a \leq 2$, $0 \leq c \leq 3$, the value of $b+d$ provides a molecular weight of 134 to 75,000, and with the proviso that there are at least two SiH groups per molecule;

10 (C) a catalytic amount of a hydrosilylation catalyst; and

optionally (D) an inorganic filler;

(VI) curing silicone composition (X)

with the proviso that the molar ratio of $\text{R}^2_2\text{SiO}_{2/2}$ units to all other units combined is higher in silicone composition (Y) than in the silicone composition (X), and the surface energy of

15 the cured composition (Y) is lower than the cured silicone composition (X); and

(VII) separating the cured silicone composition (X) of step (VI) from the substrate.